

WHAT IS CLAIMED IS:

1 A method of removing hair or blood vessels from the skin of a patient using a flashlamp apparatus having a flashlamp, a sequence control device and an optical delivery system, comprising the steps of:

a) controlling said flashlamp to sequentially emit a series of pulses of incoherent light energy, each having a pulse width in the range of $\frac{1}{2}$ ms to 10ms;

b) transmitting said series of pulses of incoherent light energy through said optical delivery system to the same spot on the skin of the patient;

c) irradiating the same spot on the skin containing the hair or blood vessels with said series of sequential pulses of incoherent light energy transmitted through said optical delivery system from said flashlamp; and

d) pulsing said flashlamp at least two times through said optical delivery system at a wavelength in the range of 550 to 1200nm, at a power level in the range of 4 to 25 Joules/cm², each pulse having a duration in the range of $\frac{1}{2}$ to 10 milliseconds, a delay between pulses in the range of 1 to 10 milliseconds, and having a beam diameter on the treatment area in the range of 4 to 50 millimeters.

2. A method of removing hair or blood vessels from the skin of a patient using a flashlamp apparatus having a flashlamp, a sequence control device and an optical delivery system, comprising the steps of:

5 a) controlling said flashlamp to sequentially emit a series of pulses of incoherent light energy, each having a pulse width in the range of $\frac{1}{2}$ ms to 10ms;

10 b) transmitting said series of pulses of incoherent light energy through said optical delivery system to the same spot on the skin of the patient;

15 c) irradiating the same spot on the skin containing the hair or blood vessels with said series of sequential pulses of incoherent light energy transmitted through said optical delivery system from said flashlamp; and

20 d) pulsing said flashlamp to have a pulse delay between each of said pulses less than the thermal relaxation time (TRT) of the patient's hair ~~and skin~~ in order to remove the patient's hair and in order to avoid burning of the patient's skin, said pulse delay between each of said pulses being less than 10ms.

20 3. A method of removing hair in accordance with Claim 2, wherein said pulse width has a range of 2 to 6 milliseconds, in duration.

4. A method of removing hair in accordance with Claim 2, wherein said delay between pulses has a range of 1 to 8 milliseconds in duration.

5. A method of removing hair in accordance with Claim 2, wherein said power level has a range of 4 to 25 Joules/cm² per pulse.

6. A method of removing hair in accordance with Claim 2, wherein said beam diameter has a range of 4 to 50 millimeters.

7. A method of removing hair in accordance with Claim 2, wherein said delay between pulses has a range of 2 to 4 milliseconds in duration for a sequence of two pulses.

8. A method of removing hair in accordance with Claim 2, wherein said delay between pulses has a range of 3 to 6 milliseconds in duration for a sequence of three pulses.